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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/699,303	10/27/2000	Jing Luo	17815.205469	6250

7590  
W. Scott Petty  
KING & SPALDING  
45TH FLOOR  
191 Peachtree Street  
Atlanta, GA 30303

10/11/2002

EXAMINER

BOYER, CHARLES I

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 10/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/699,303

Applicant(s)

Luo et al

Examiner

Charles Boyer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Aug 13, 2002
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) ~~1-42~~ 1-4, 6, 7, 10, 13-27, 29-42 is/are pending in the application.
- 4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) ~~1-42~~ 1-4, 6, 7, 10, 13-27, 29-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_
- ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other:

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### DETAILED ACTION

This action is responsive to applicants' amendment and response received Aug 13, 2002.

Claims 1-4, 6, 7, 10, 13-27, and 29-42 are currently pending.

#### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 6, 7, 10, 13-27, 29-33, 41, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jobbins et al, US 5,807,464.

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Jobbins et al teach a deinking process for office wastepaper (see abstract). An example of such a process employs InkMaster 750, an ethoxylated/propoxylated fatty alcohol which overlaps the deinking surfactant of the present claims, in a pulp slurry with a pH adjusted to nine (col. 10, lines 13-40). Jobbins et al do not specifically teach a nonionic surfactant as a deinking agent with the precise numeric range of alkylene oxide adducts as presently claimed, however, such surfactants are encompassed and overlapped by the teachings of Jobbins et al as suitable surfactants for use in their invention. With respect to the fatty acid limitation of the present claims, the examiner notes this is an optional component only.

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While applicants appear to acknowledge that the prior art overlaps their presently claimed range, they nevertheless traverse on the grounds that one of ordinary skill in the art would not use such a range based on the teachings of Jobbins et al. Applicants argue that because Jobbins et al teach a flotation process, they desire a more hydrophobic surfactant, and therefore would choose a surfactant outside the range of applicants. The examiner notes and applicants have stated in their arguments that Jobbins et al teach a carbon chain length in a range of C16 to C20 and applicants teach a range of C16 to C18, yet one of ordinary skill would not use a C16 to C18 carbon chain? Carbon chains in these surfactants are always a blend of different lengths, and one of the most common, tallow, is a blend of C16 to C18 carbon chains. Accordingly, the examiner believes the surfactants of Jobbins et al will include carbon chain lengths and moles of ethylene oxide and propylene oxide which overlap those ranges of the present claims, and so the rejection is maintained. With respect to claims 41 and 42, as Jobbins et al are deinking wastepaper with a surfactant that overlaps that of the present claims, the claim limitation is satisfied, be it a wash process or flotation process.

3. Claims 1-4, 6, 7, 10, 13-27, 29-33, 41, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Irinatsu et al, US 6,103,056.

Irinatsu et al teach a deinking process (see abstract). An example of such a process employs stearyl alcohol with 15 moles of EO and 15 moles of PO as the deinking surfactant (col. 14, example 3). Another example employs stearyl alcohol with 10 moles of EO and 10 moles of

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PO as the deinking surfactant (col. 15, example 5). Suitable nonionic surfactants of the invention include alkylene oxide adducts of fatty alcohols wherein the number of alkoxy groups ranges from 7 to 150 moles with ethoxy and propoxy groups being the most preferred (col. 7, lines 1-4). Note that fatty acids are also taught as suitable deinking compounds by Irinatsu et al (col. 16, example 6). Irinatsu et al do not specifically teach a nonionic surfactant as a deinking agent with the precise numeric range of alkylene oxide adducts a presently claimed, however, such surfactants are encompassed and overlapped by the teachings of Irinatsu et al as suitable surfactants for use in their invention.

Applicants have traversed this rejection for the same reasons set forth above and the examiner's response is the same. As the prior art overlaps applicants' ranges, it would be obvious to prepare a surfactant having these ranges.

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4. Claims 1-4, 6, 7, 10, 13-27, and 29-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rodriguez et al, US 5,665,204.

Rodriguez et al teach a deinking process for printed wastepaper (see abstract). An example of such a process employs nonyl phenol with 14 moles of EO and 12 moles of PO as the deinking surfactant (col. 4, example 1). Suitable nonionic surfactants of the invention include alkylene oxide adducts of fatty alcohols wherein the number of ethoxy groups ranges from 2 to 100 moles and the number of propoxy groups ranges from 1 to 50 moles (see abstract). Rodriguez et al do not specifically teach a nonionic surfactant as a deinking agent with the precise

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range of alkylene oxide adducts as presently claimed, however, such surfactants are encompassed and overlapped by the teachings of Rodriguez et al as suitable surfactants for use in their invention.

Applicants have traversed this rejection for the same reasons set forth above and the examiner's response is the same. As the prior art overlaps applicants' ranges, it would be obvious to prepare a surfactant having these ranges.

### *Conclusion*

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Boyer whose telephone number is (703) 308-2524. The examiner can normally be reached on Monday-Friday from 9:30 AM - 6:00 PM.

If reasonable attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta, can be reached on (703) 308-4708. The fax phone number for this Group is (703) 872-9310 for non-after-final amendments and (703) 872-9311 for after-final amendments.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Charles Boyer



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October 9, 2002